

SLIT

Dart Aerospace Ltd.

Date:  
User:Tuesday, 1/8/2008 1:20:00 PM  
Kim Johnston

## Process Sheet

Customer	: CU-DAR001	Dart Helicopters Services	Drawing Name	: BRACKET ASSEMBLY
Job Number	: 36663	--/		
Estimate Number	: 10278			
P.O. Number	:		Part Number	: D3121141
This Issue	: 1/8/2008	S.O. No. :	Drawing Number	: D3121 REV E
Prsht Rev.	: NC		Project Number	: N/A
First Issue	: 1/1	Type : MACHINED PARTS	Drawing Revision	: E
Previous Run	: 36629		Material	:
Written By	:		Due Date	: 2/15/2008
Checked & Approved By	:		Qty:	12. <del>40</del> Um: Each
Comment	:	Est Rev: Pick: A 04.02.18 New issue KJ/DS		
	:	Est Rev: B ECN 1060 07-11-12 DD verified by: EC		

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description:

1.0 M174B1000X02000 17-4 SS Bar



Comment: Qty.: 0.5775 f(s)/Unit Total: 23.1000 f(s)  
 Material: 17-4 SS Bar per AMS 5604/5643  
 (M17-4-B1.000x02.000)  
 Identify for D3121-111  
 Batch: A102476

SF 08/02/09

2.0 BAND SAW BAND SAW



Comment: BAND SAW  
 Cut blanks: (1.000" x 2.000") 6.600" long

SF 08/02/09

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3121-111 as per Folio FA361 and Dwg D3121 Identify as D3121-111  
 2-Deburr

3-Scribe batch number

DJP 08/02/12

SF 08/02/09

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

DJP 08/02/12

SF 08/02/09

User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 36663

Part Number: D3121141

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

mk 08/02/12

(12)

6.0

D312121

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3121-21

Bolt B36668 x 12 parts.

DJP 08/02/12

(x12)

7.0

D3121241

Bearing Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3121-241 Bearing Ass

B34523 x 3 parts

B36669 x 9 parts

DJP 08/02/12

(x12)

8.0

SMALL FAB 1

SMALL &amp; MEDIUM FAB RESOURCE 1



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1

Assemble D3121-141 as per Dwg D3121.

DJP 08/02/12

(x12)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/02/12 (x12)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

ST233

AS 08/02/13

(x12)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08.02.13

Job Completion

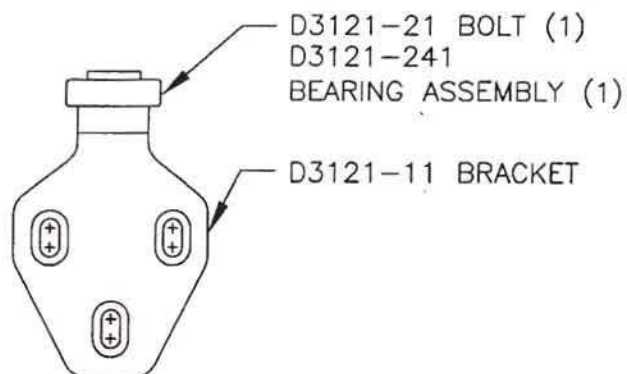


u 08.02.13

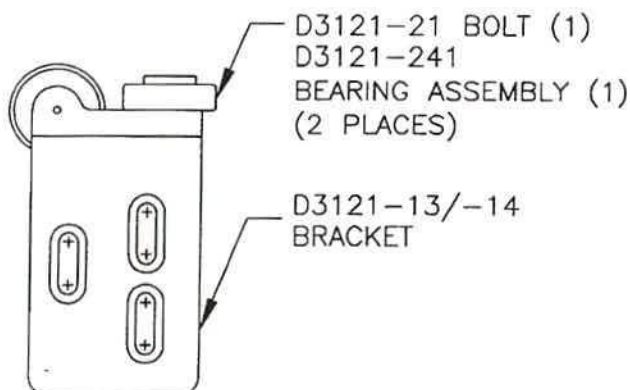


**DART**

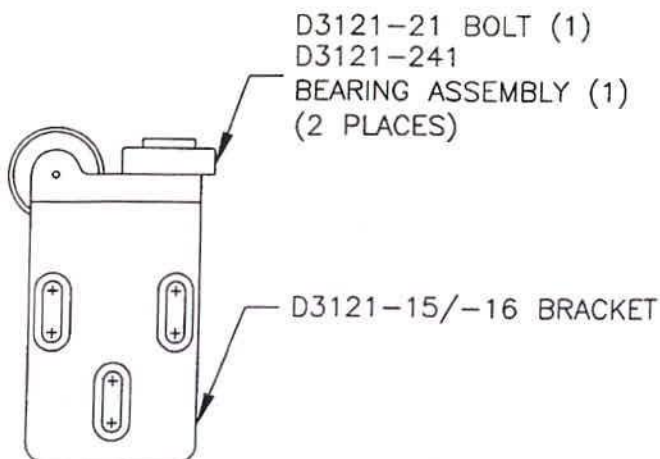
DESIGN #	DRAWN BY LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3121	REV. E SHEET 1 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2
A	02.04.15	NEW ISSUE	
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146	
C	04.02.17	ADD CLEARANCE; USE -241 BEARING	
D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000	
E	07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)	

**RELEASED**  
07.11.07

**D3121-041 BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-33)



**D3121-043 (SHOWN) / D3121-044 (OPPOSITE)**  
**BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-37/-38)



**D3121-045 (SHOWN) / D3121-046 (OPPOSITE)**  
**BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-35/-36)

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 36663

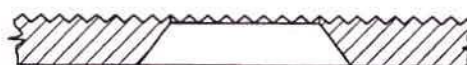
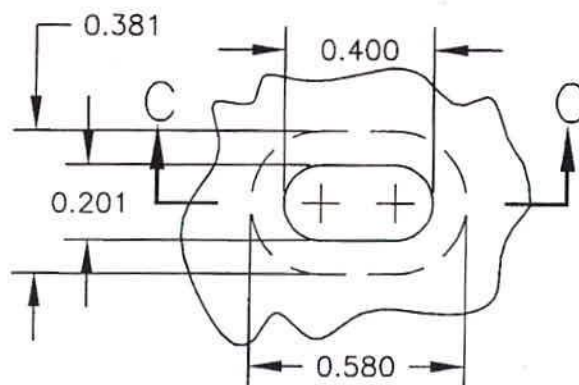
Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN <i>[Signature]</i>	DRAWN BY <i>LE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3121	REV. E SHEET 3 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:1

**DETAIL A:**  
**SLOT DETAIL**  
SCALE 2:1  
VIEW ROTATED

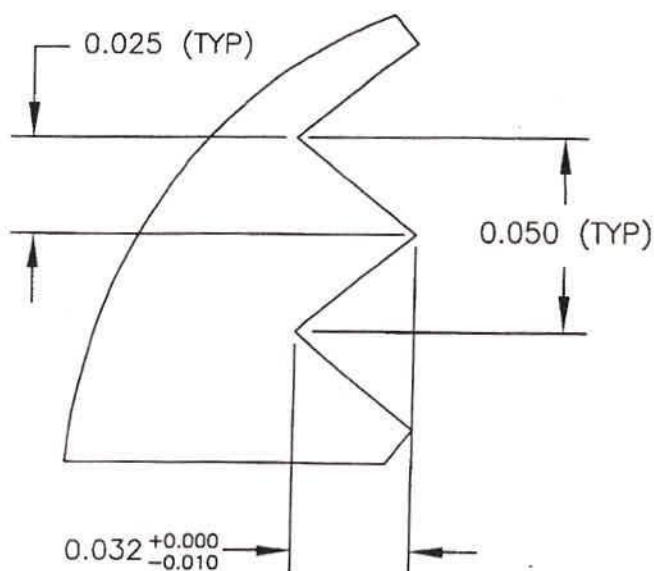


**SECTION**  
**C-C**

100° C'SINK

**RELEASED**  
07.11.07 *[Signature]*

**DETAIL B:**  
**RIDGE DETAIL**  
PARTIAL SECTION  
SCALE 1:20



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 36663

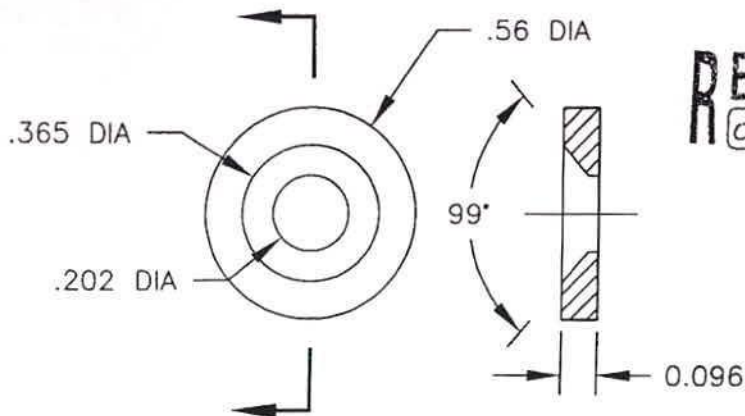
Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

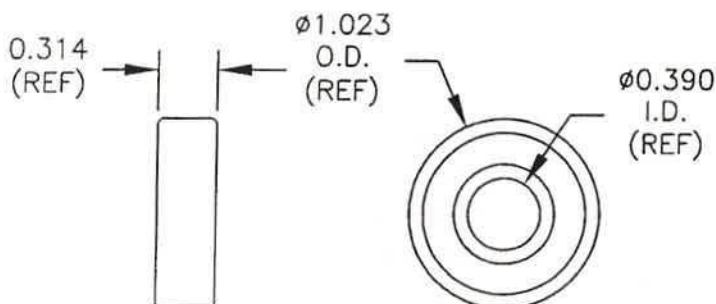


**DART**

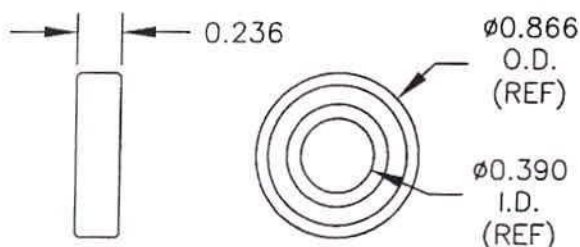
DESIGN #	DRAWN BY LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3121	REV. E SHEET 10 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:1

**D3121-17 WASHER (SCALE 2:1)**

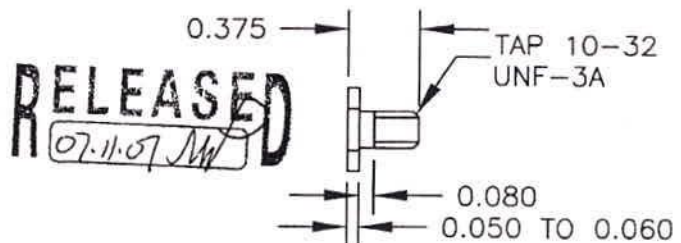
- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-19 BEARING (SCALE 1:1)**

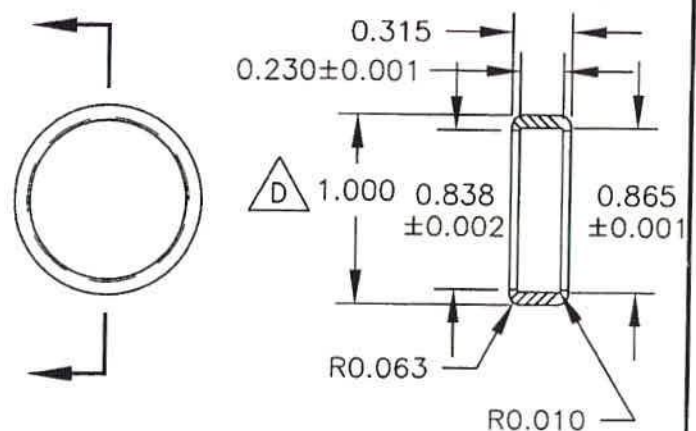
- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES

**D3121-23 BEARING (SCALE 1:1)**

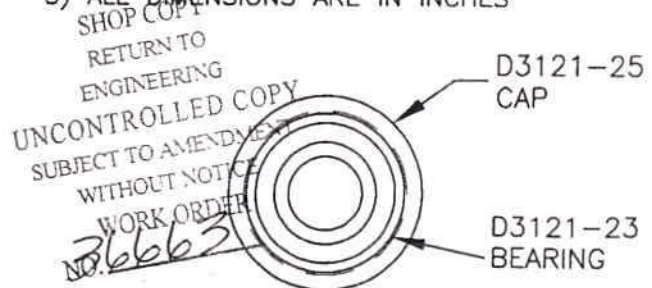
- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

**D3121-21 BOLT (SCALE 1:1)**

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-25 CAP (SCALE 1:1)**

- 1) MATERIAL: DELRIN ROD, 1.25 (REF DART SPEC. M-DELIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

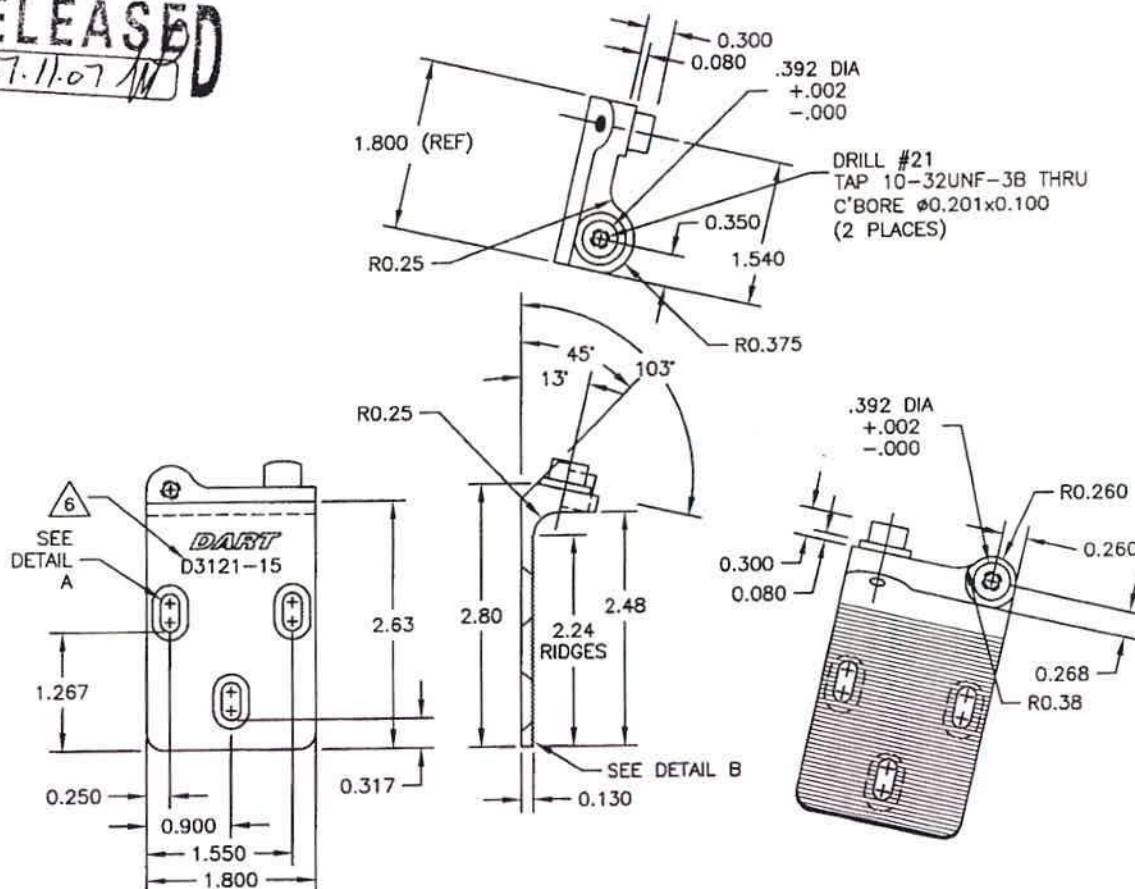
**D3121-241 BEARING ASSEMBLY (SCALE 1:1)**

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**DART**

DESIGN #	DRAWN BY LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3121	REV. E SHEET 6 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

**RELEASED**  
07.11.07

**D3121-15 BRACKET (SHOWN)**  
**D3121-16 BRACKET (OPPOSITE)**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)  
MIN ULTIMATE TENSILE = 150 ksi  
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 36663

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DART AEROSPACE LTD		Work Order:	36663
Description: Bracket		Part Number:	D3121-111
Inspection Dwg: D3121	Rev: <i>PE</i> <i>VE</i> <i>08.01.08</i>	Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.392	+0.002/-0.000	.392	✓			
0.75	+/-0.030	.751	✓			
0.375	+/-0.010	.376	✓			
2.14	+/-0.030	2.140	✓			
0.950	+/-0.010	.952	✓			
0.600	+/-0.010	.609	✓			
1.96	+/-0.030	1.962	✓			
0.280	+/-0.010	0.287	✓			
3.330	+/-0.010	3.330	✓			
3.630	+/-0.010	3.625	✓			
R0.25	+/-0.030	R.250	✓			
R0.375	+/-0.010	R.375	✓			
Ø0.201	+0.005/-0.000	.204	✓			
0.100	+/-0.010	.1000	✓			
4.580	+/-0.010	4.575	✓			
6.18	+/-0.030	6.183	✓			
5.89	+/-0.030	5.895	✓			
0.080	+/-0.010	.078	✓			
0.300	+/-0.010	.301	✓			
30°	+/-0.1°	30°	✓			
R0.25	+/-0.030	R.250	✓			
0.130	+/-0.010	.128	✓			
0.381	+/-0.010	.389	✓			
0.281	+/-0.010	.204	✓			
0.400	+/-0.010	.404	✓			
0.580	+/-0.010	.584	✓			
100°	+/-1°	100°	✓			
0.032	+0.005/-0.010	.031	✓			

Measured by: <i>LF</i>	Audited by: <i>mk</i>	Prototype Approval:	N/A
Date: <i>08/02/09</i>	Date: <i>08/02/12</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.01.12	New Issue P/O D3121-141	KJ/RF	
B	04.05.05	Dimensions changed/re-arranged per Dwg revision	KJ/JLM	
C	06.06.14	Dwg Rev. updated	KJ/JLM	